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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,920	01/26/2007	Katsura Koyagi	290694US26X PCT	6875

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EXAMINER	
WAITS, ALAN B	

ART UNIT	PAPER NUMBER
3656	

NOTIFICATION DATE	DELIVERY MODE
08/04/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/577,920	KOYAGI ET AL.	
	Examiner	Art Unit	
	ALAN B. WAITS	3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 May 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 May 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/15/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "outer end part of the rotatable cylindrical part" of claim 1, the "vehicle body and wheel" of claim 10 and the "cavity of claim 14 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: the "outer end part of the rotatable cylindrical part" in claim 1, and the "cavity" of claim 14 are not described and supported in the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Sentoku USP 6605938.

Sentoku discloses a similar device comprising:

Re clm 1:

- A fixed side deal member (98, 100, 102, 101, 104, 103, and 106A-C, fig 6)
- A core metal part (98, 100, 101; fig 6) fitted and fixed to a fixed member (92, fig 6)
- A sensor (103, fig 6) adhered via resin (102, fig 6) to the core metal
- A rotating side seal member (95A, 95B, 96A, 105, 97 and 95, fig 6) that rotates around an axis of rotation
- A rotatable cylindrical part (95A, fig 6) fitted and fixed to a rotating member

- A flange part (95B, fig 6) extending towards the fixed side seal member, in continuation with an outer end part (95, fig 6), in an axial direction of the rotatable cylindrical part
- A fitting cylindrical part (portion of core metal pare between 100 and the upper right end of the core metal part) fitted and fixed to the fixed member
- A first coupling part (101, fig 6) extending towards the rotatable cylindrical part of the rotating side seal member in continuation with an inner end part (from 100 over to the right downward bend in the core metal part, fig 6) of the fitting cylindrical part
- A moisture entering prevention cylindrical part (106, fig 6) extending outward in the axial direction in continuation with the first coupling part
- An outer end part (98, fig 6), in the axial direction, of the fitting cylindrical part is positioned and fixed in the resin
- An elastic seal (106A-C, fig 6) is arranged on one of the core metal part and the rotating side seal member to slidably contact the other of the core metal part and the rotating side seal member

Re clm 2:

- The rotating side seal member includes a pulser arranged at an inner portion, in the axial direction, of the rotatable cylindrical part
- A supporting member (96, fig 6)
- A large diameter cylindrical part (96A, fig 6)
- A small diameter cylindrical part (bottom of 96, fig 6)

- A second coupling part (106B, fig 6)
- A magnetized body (105, fig 6) arranged in the supporting member so as to face the sensor
- The elastic seal being arranged at an outer end part, in the axial direction, of the moisture prevention cylindrical part of the fixed side seal member and extending radially away from the moisture entering prevention cylindrical part and toward the outer portion, in the axial direction, of the rotatable cylindrical part and the flange part of the rotating side seal member (fig 6)

Re clm 4, 11:

- A wiring retrieving cut-out (104, fig 6) [for passing wiring connecting the sensor and a signal processing means] is arranged at the outer end part, in the axial direction of the fitting cylindrical part of the core metal of the fixed side seal member (fig 6)

Re clm 9:

- A fixed ring (92, fig 7) serving as a fixed member
- A rotating ring (91, fig 7) serving as a rotating member
- Rollers (between 92 and 91, fig 7) arranged between the rings
- A sealing device with sensor integrally arranged with the roller bearing

Re clm 10:

- The fixed ring is a vehicle body side raceway member (col 1, lines 9-11) including an attachment to the vehicle body

- The rotating ring is a while side raceway member (col 1, lines 9-11) including a wheel attachment

5. Claims 1, 3, 5-8 and 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Sentoku USP 6605938.

Sentoku discloses a similar device comprising:

- A fixed side deal member (188, 192, 197, 200, 201 and 202, fig 13)
- A core metal part (192 and 188, fig 13) fitted and fixed to a fixed member (92, fig 6)
- A sensor (193, fig 13) adhered via resin (194, fig 13) to the core metal
- A rotating side seal member (191B, 191A, 191A-1, 203 and 205, fig 13) that rotates around an axis of rotation
- A rotatable cylindrical part (191, fig 13) fitted and fixed to a rotating member
- A flange part (191A-1 and 191A, fig 13) extending towards the fixed side seal member, in continuation with an outer end part (corner of 191, fig 13), in an axial direction of the rotatable cylindrical part
- A fitting cylindrical part (188 and 192B, fig 13) fitted and fixed to the fixed member
- A first coupling part (188B, fig 13) extending towards the rotatable cylindrical part of the rotating side seal member in continuation with an inner end part (188A, fig 13) of the fitting cylindrical part

- A moisture entering prevention cylindrical part (elastic part at the end of 188B made up of 201 and 202, fig 13) extending outward in the axial direction in continuation with the first coupling part
- An outer end part (192B, fig 13), in the axial direction, of the fitting cylindrical part is positioned and fixed in the resin
- An elastic seal (202, fig 13) is arranged on one of the core metal part and the rotating side seal member to slidably contact the other of the core metal part and the rotating side seal member

Re clm 3:

- A step (191A, fig 13) including an inner portion (where 191A curves inward and connects to 191A-1, fig 13), in the axial direction, and an outer portion (part of 191A that sticks out, fig 13), in the axial direction, that has a smaller diameter than the inner portion, is formed at an end part of the rotating member
- The rotatable cylindrical part of the rotating side seal member is fitted to the outer portion, in the axial direction, of the step (fig 13)
- A supporting member of a pulser, includes a cylindrical supporting member (191A-1, fig 13) and a magnetized body (193, fig 13) and is fitted to the inner portion, in the axial direction, of the step of the rotating member
- The magnetized body of the pulser is arranged at the supporting member so as to face the sensor

- The elastic seal is arranged at the outer end part, in the axial direction, of the moisture entering prevention cylindrical part of the fixed side seal member and extends radially toward the rotating side seal member (fig 13)

Re clm 5:

- The fixed side seal member includes, a bulging resin part (portion of resin that holds 193, fig 13) that bulges outward in the axial direction more than the rotating side seal member bulges, and faces inward toward the axis of rotation

Re clm 6:

- A positioning planar end face (surface of resin parallel to vertical close to element 194, fig 13) spaced apart by a predetermined distance outward, in the axial direction, from an outer end part (192B, fig 13), in the axial direction, of the core metal
- An outer surface and an inner surface (surface of resin parallel to horizontal close to element 194 and below the positioning planar end face, fig 13) and an inner surface (surface of resin close to element 206, fig 13) adjacent to the planar end face, in the radial direction, being positioned more inward in the axial direction than the planar end face

Re clm 7:

- A plurality of convex parts (convex bends in 192A, 192B and 198, fig 13) are arranged in the circumferential direction in a predetermined interval on

at least one of an outer surface or an inner surface, in the axial direction, of resin exposed from the core metal

Re clm 8:

- The plurality of convex parts are arranged on both the outer surface and the inner surface in the axial direction of the resin (fig 13)

Re clm 12:

- A wiring retrieving cut-out (196, 13) [for passing wiring connecting the sensor and a signal processing means] is arranged at the outer end part, in the axial direction of the fitting cylindrical part of the core metal of the fixed side seal member

Re clm 13:

- The sensor is disposed radially between the fitted cylindrical part and the moisture entering prevention cylindrical part (fig 13)

Re clm 14:

- The flange part of the rotating side seal member is received in a cavity in the elastic seal (fig 13)

Re clm 15:

- The moisture entering prevention cylindrical part is parallel to the fitting cylindrical part and is radially offset from the fitting cylindrical part (fig 13)

Re clm 16:

- The moisture entering prevention cylindrical part is disposed between the elastic seal and the fitting cylindrical part (fig 13)

Regarding the functional recitation(s) in the claim(s) above denoted by the "[ ]" the examiner notes while features of an apparatus may be recited either structurally or functionally, claims directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function. The reference discloses all the claimed structural limitations and therefore anticipates the claim. See MPEP 2114. Additionally, the apparatus is capable of performing the claimed functions.

Response to Arguments

6. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALAN B. WAITS whose telephone number is (571)270-

3664. The examiner can normally be reached on Monday through Friday 7:30 am to 5 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alan B Waits/
Examiner, Art Unit 3656

/Richard WL Ridley/
Supervisory Patent Examiner, Art Unit 3656